(19) World Intellectual Property Organization International Bureau

CAIPO OHE

(43) International Publication Date 15 April 2004 (15.04.2004)

PCT

(10) International Publication Number WO 2004/031067 A1

(51) International Patent Classification?: E02F 9/24 B66C 13/06,

(21) International Application Number:

PCT/SE2003/001546

(22) International Filing Date: 5 October 2003 (05:10.2003)

(25) Filing Language:

Swedish

(26) Publication Language:

English

(30) Priority Data: SE 0202945-2

7 October 2002 (07.10.2002) SE

- (71) Applicant (for all designated States except US): INDEX-ATOR AB [SE/SE]; Box 11, S-922 21 Vindeln (SE).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): HARR, Joakim [SE/SE]; Lövstigen 61, S-903 43 Umeå (SE).
- (74) Agent: HEDLUND, Alf; Patentkonsult Alf Hedlund AB, Box 171, S-931 22 Skellefteå (SE).

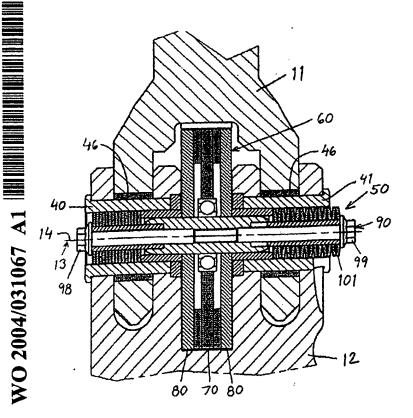
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GII, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ARRANGEMENT RELATED TO A SWING DAMPER



(57) Abstract: The present invention relates to an arrangement and to a method relating to a swing damper (1) for carrying a tool (5) that hangs from a crane arm (2) or the like. The swing damper (1) includes an upper part (11) that is connected to the crane arm (2), and a lower part (12) that carries a working implement (5) or the like either directly or via a rotator (4), for instance. The upper part (11) and the lower part (12) are pivotally connected to one another via a pivot joint (13). The swing damper (1) also includes a brake arrangement (50). The brake arrangement (50) includes a brake unit (60) that has discs (70, 80) which are pivotal about the pivot shaft (14) of the swing joint (13), wherein at least one (70) of said discs is secured against rotation relative to the upper part (11), and wherein at least one (80) of said discs is secured against rotation relative to said lower part (12). The arrangement also includes a tensioning element (90; 110; 130) which functions to press the discs (70, 80) together in a braking operation. The brake unit (60) is situated in a space (200) between two pivot hearings (46) hetween the upper part (11) and the lower part (12).

Best Available Copy